

REMARKS

Claims 19-30 are pending.

Claims 26 and 30 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention.

Claims 19-24, 27-30 stand rejected under 35 USC §102(b) as being allegedly anticipated by Machida (US 4,883,710).

Claims 25 and 26 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Machida (US 4,883,710) in view of Licht (US 5,146,361).

Changes in the Specification:

The specification has been amended for the purpose of improving the readability of the application and are of a clerical, typographical or grammatical nature. No new matter has been added.

The specification has been amended in order to update the state of parent application 09/529,919, now US Patent No. 6,759,137. No new matter has been added.

Changes in the Claims:

Claims 19, 23, 24, 26, and 30 have been amended in this application to further particularly point out and distinctly claim subject matter regarded as the invention. No new matter has been added.

Claim Objections – claims 23, 24 and 26

Claims 23, 34, and 26 stand objected to because of informalities. Claims 23, 24 and 26 have been amended to place a space between the second number and “nm” for better readability. The claims now meet the statutory requirements.

Rejection under 35 USC §112, second paragraph – claims 26 and 30

Claims 26 and 30 stand rejected under 35 USC §112, second paragraph, as being allegedly indefinite for failing to particularly point out and distinctly claim the subject matter that the Applicant regards as the invention. This rejection is respectfully traversed.

MPEP §2171 identifies two separate requirements: (1) the claims must set forth the subject matter that applicants regard as their invention; and (2) the claims must particularly point out and distinctly define the meets and bounds of the subject matter that will be protected by the patent grant. A lack of antecedent basis may be found if a claim is “indefinite” because “it contains words or phrases whose meaning is unclear”; see MPEP §2173.05(e).

The Office Action alleges that the limitation “said recording layer” in claim 19 is unclear. The recording layer refers to the garnet ferrite layer and the underlayer. Claim 19 has been amended to clarify to replace “garnet ferrite recording layer” with “garnet ferrite layer”.

The Office Action alleges that the limitation “said transparent layer” in claim 30 lacks antecedent basis. Claim 30 has been amended accordingly. Claim 30 has been amended to depend from claim 29. The claims now meet the statutory requirements.

Rejection under 35 USC §102(b) – claims 19-24 and 27-30

Claims 19-24 and 27-30 stand rejected under 35 USC §102(b) as being allegedly anticipated by Machida (US 4,883,710). This rejection is respectfully traversed.

A claim must be anticipated for a proper rejection under §102(a), (b), and (e).

This requirement is satisfied “only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference”; see MPEP §2131 and *Verdegaal Bros. V. Union Oil*, 814 F.2d 628, 2 USPQ2d 1051 (Fed. Cir. 1984). A rejection under §102(b) may be overcome by showing that the claims are patentably distinguishable from the prior art; see MPEP §706.02(b).

Machida describes setting each of the temperatures of substrates when forming first and second magnetic layers thereon. See first table in Example 6 of Machida.

In contrast, the presently claimed invention claims “the recording layer is heat-treated **after** the formation of the garnet ferrite layer ...”. Machida does **not** teach or suggest heat treatment **after** the formation of those magnetic layers. The presently claimed invention is characterized by heat treatment in the temperature range as shown in FIG. 19 **after** the formation of an underlayer and a garnet ferrite (recording) layer. This heat treatment is completely different from setting the temperature of substrates when forming magnetic layers disclosed in Machida.

By the heat treatment after the formation of the underlayer and the garnet ferrite (recording) layer, the present invention provides remarkable effects of providing magneto-optical recording abilities to the garnet ferrite (recording) layer 3a only on the

underlayer 2 while making the garnet ferrite layer 3b which is not formed on the underlayer 2 non-magnetic as shown in FIG. 18A and FIG. 18B.

Furthermore, Machida describes “iron-garnet ferrite” and “nickel spinel ferrite” as possible material for the first and second magnetic layers. Machida does not teach or suggest a selective combination of iron garnet ferrite as a first magnetic layer and of nickel spinel ferrite as a second magnetic layer. Instead, Machida suggests the use of a magnetoplumbite hexagonal ferrite as material of a first magnetic layer and thus teaching away from the use of iron garnet ferrite as a first magnetic layer. Table 7 in Machida does not contain a combination of iron garnet ferrite as a first magnetic layer and of nickel spinel ferrite as a second magnetic layer, because A-1 to A-11 is magnetoplumbite hexagonal ferrite. Accordingly, Machida does not teach or suggest a combination of garnet ferrite layer and an underlayer made from spinel ferrite, rutile-type oxide or hematite as claimed in claim 19.

The presently claimed invention is, accordingly, distinguishable over the cited reference. In the view of the foregoing, it is respectfully asserted that claims 19-24 and 27-30 are now in condition for allowance.

Rejection under 35 USC §103(a) – claims 25 and 26

Claims 25 and 26 stand rejected under 35 USC §103(a) as being allegedly unpatentable over Machida (US 4,883,710) in view of Licht (US 5,146,361). This rejection is respectfully traversed.

Under MPEP §706.02(j), in order to establish a prima facie case of obviousness required for a §103 rejection, three basic criteria must be met: (1) there must be some

suggestion or motivation either in the references or knowledge generally available to modify the reference or combine reference teachings (MPEP §2143.01), (2) a reasonable expectation of success (MPEP §2143.02), and (3) the prior art must teach or suggest all the claim limitations (MPEP §2143.03). See In re Royka, 490 F. 2d 981, 180 USPQ 580 (CCPA 1974).

The proposed combination of Machida and Licht does not teach or suggest all of the limitations of claims 25 and 26. As previously discussed, the heat treatment of 500 to 700C **after** the formation of the underlayer and the garnet ferrite (recording) layer give remarkable effects of providing magneto-optical recording abilities on the garnet ferrite (recording) layer 3a only on the underlayer 2 while making the garnet ferrite layer 3b which is not formed on the underlayer 2 non-magnetic as illustrated in FIG. 18A and 18B.

The presently claimed unique structure can reduce noise derived from the garnet ferrite layer 3b, and can reduce magnetic interference with data recorded in the garnet ferrite (recording) layer 3a due to the presence of the garnet ferrite layer 3b. Further, the presently claimed invention provides advantageous magneto-optical recording medium having a smooth surface with no cracks, as well as better S/N and/or C/N ratio(s).

Neither Machida nor Licht teach or suggest the above claimed limitations.

Applicant therefore submits that the rejection based the Machida and Licht reference is improper and should be withdrawn. Thus, Applicant submits that claims 25 and 26 recite novel subject matter which distinguishes over any possible combination of Machida and Licht.

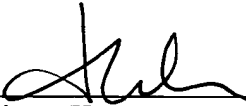
Conclusion

For all of the above reasons, applicants submit that the amended claims are now in proper form, and that the amended claims all define patentable subject matter over the prior art. Therefore, Applicants submit that this application is now in condition for allowance.

Request for allowance

It is believed that this Amendment places the above-identified patent application into condition for allowance. Early favorable consideration of this Amendment is earnestly solicited. If, in the opinion of the Examiner, an interview would expedite the prosecution of this application, the Examiner is invited to call the undersigned attorney at the number indicated below.

Respectfully submitted,
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